ICF-CS650

SERVICE MANUAL

US Model
Canadian Model
Italian Model

Model Name Using Similar Mechanism	New
Tape Transport Mechanism Type	MF-CS650

SPECIFICATIONS

Radio section

Frequency range
- US, Canadian model
  - FM: 87.6-108 MHz
  - AM: 530-1,710 kHz
- Italian model
  - FM : 87.5-108MHz
  - AM : 526.5-1,606.5kHz

Antennas
- FM: FM wire antenna
- AM: Built-in ferrite bar antenna

Tape player section and general

Track system: 4-track 2-channel, stereo

Frequency response: 50-10,000 Hz with normal (TYPE I) tapes

Speaker: Fullrange: 9.2 cm ($3^5/_8$ inches) dia.

Power outputs
- Radio section: 1 W + 1 W (at 10% harmonic distortion)
- Player section: 1 W + 1 W (at 10% harmonic distortion)

Power requirements
- US, Canadian model : 120 V AC, 60 Hz
- Italian model : 220-230V AC, 50Hz
- For the power backup function: 9 V DC, one 6F22 battery

Battery life: Approx. 20 hours, using Sony battery S-006P(U)

Dimensions: Approx. 275 × 155 × 154 mm (w/h/d) ($10^7/_8 \times 6^1/_8 \times 6^1/_8$ inches) incl. projecting parts and controls

Weight: Approx. 2 kg (4 lb 7 oz) not incl. battery

Design and specifications subject to change without notice.

AM/FM STEREO DIGITAL CLOCK RADIO CASSETTE PLAYER

SONY®

使用時は添付資料も参照のこと
Refer to the additional documents

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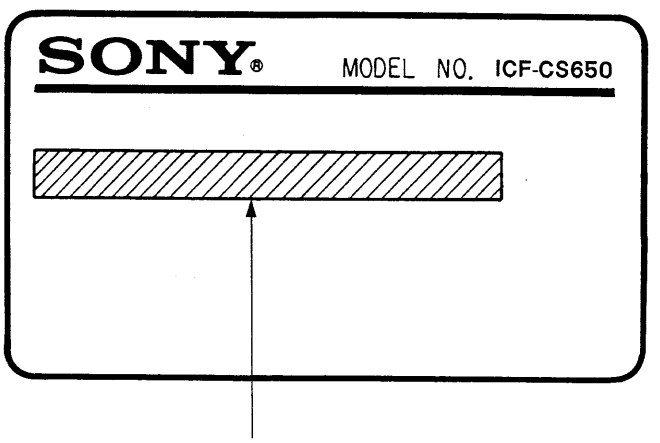
MODEL IDENTIFICATION

–Specification Label–



US, Canadian model : AC 120V~60Hz
Italian model : AC 220–230V~50Hz

Flexible Circuit Board Repairing

- Keep the temperature of the soldering iron around 270°C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

SAFETY CHECK-OUT (US Model)

After correcting the original service problem, perform the following safety check before releasing the set to the customer:
Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microampers). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)

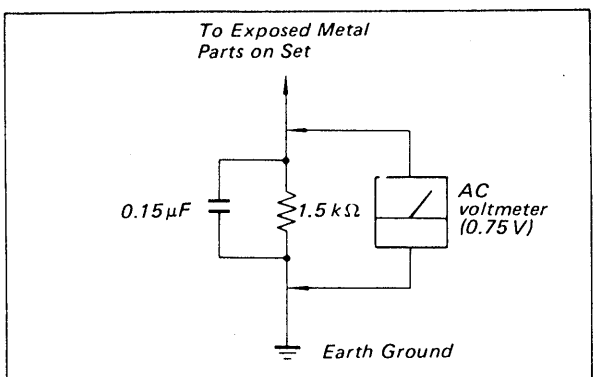
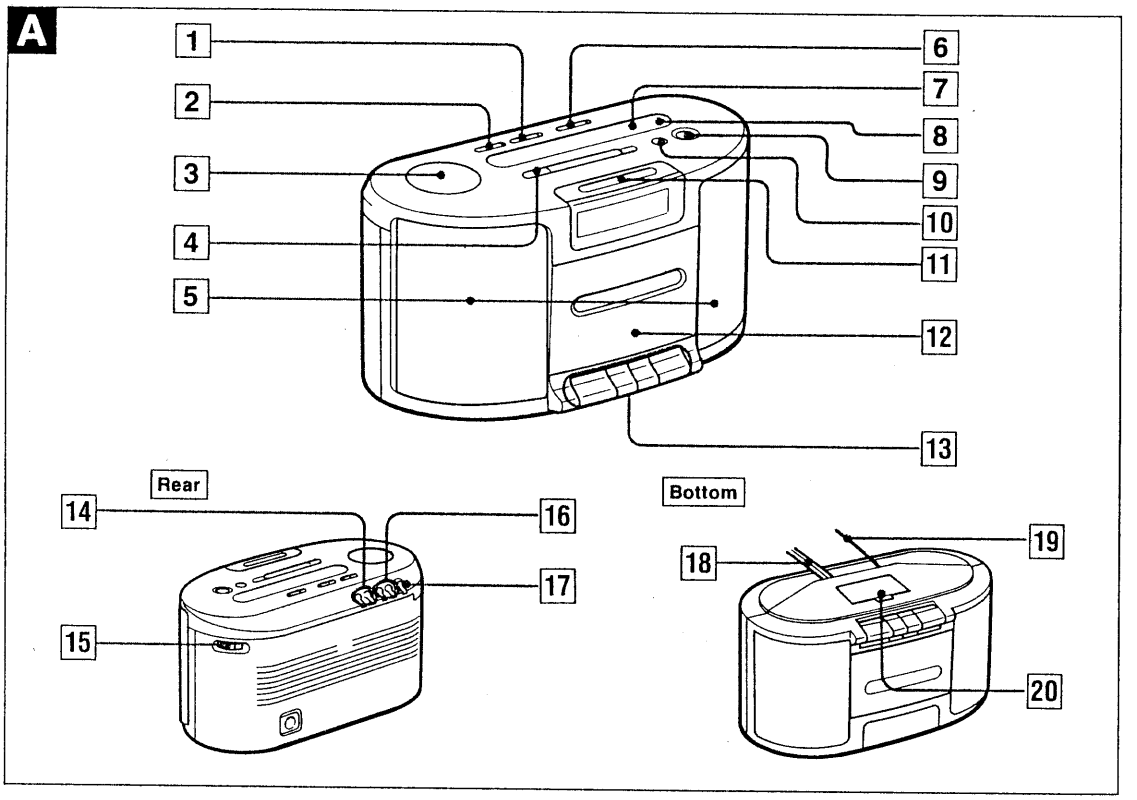


Fig. A. Using an AC voltmeter to check AC leakage.

SECTION 1
GENERAL

This section is extracted from instruction manual.

Location and Function of Controls



See illustration A.

1 **SURROUND switch**
Slide to ON to add a rich and spacious effect to the original sound.

2 **LOUDNESS switch**
Slide to ON to emphasize the bass.

3 **VOLUME control**

4 **FUNCTION selector (RADIO OFF, RADIO ON, SINGLE ALARM A RADIO/TAPE, B BUZZER, DUAL ALARM A RADIO/TAPE B BUZZER.**
Select the desired position.

5 **Speakers**

6 **BAND selector (AM/FM)**

7 **Dial scale and dial pointer**

8 **FM stereo indicator**
Lights up when an FM stereo program of sufficient signal strength is received.

9 **ALARM RESET/SLEEP OFF button**
Press to
- cancel completely the alarm setting.
- turn off the radio before the sleep timer's preset time has elapsed.

10 **SLEEP button**
Press to set the sleep timer.

11 **DREAM BAR SNOOZE bar**
Press to repeat the alarm function.

12 **Cassette Compartment**

13 **Tape operation buttons**

Rear

14 **ALARM set buttons (Ⓐ: RADIO/TAPE, Ⓑ: BUZZER)**
Press down the appropriate buttons while setting the alarm time.

15 **TUNING control**

16 **TIME SET buttons (⊖ or ⊕)**
Use to set the current time and the alarm time.

17 **CLOCK set button**
Press down while setting the current time.

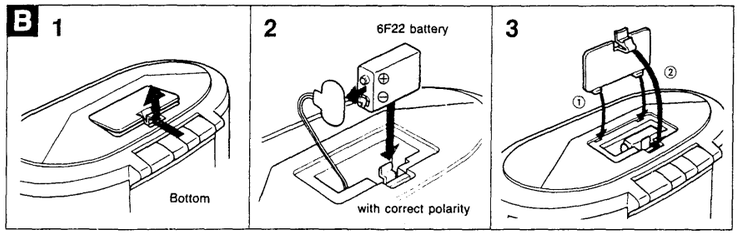
Bottom

18 **AC power cord**

19 **FM wire antenna**

20 **Power backup battery compartment**

Power Backup during Power Interruption



Battery Installation

See illustration B.

Be sure to install a 6F22 battery (not supplied) for the power backup function. If the AC power supply is interrupted, the battery supplies power to keep the clock operating and holding the alarm time setting.

- During power interruption, the clock function is maintained although the indications on the time display goes off, but the alarm sound does not come on.
- After a power interruption, the time shown in the display window may not be always correcet (it may gain or lose about 10 minutes per hour).
- This battery is only for clock opreation and alarm memory during power interruption.
  You cannot listen to the radio with the battery.

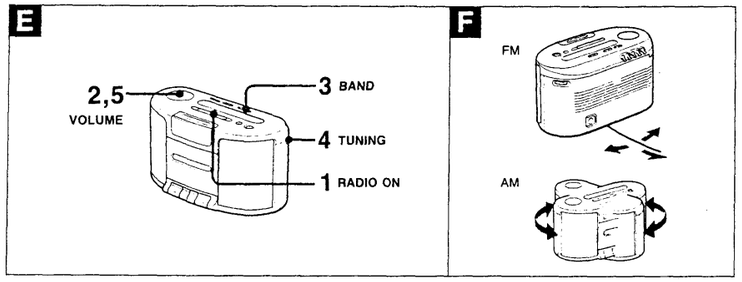
When to replace the battery

To check the battery condition, unplug the AC power cord from the wall outlet and plug it in again after a few seconds. If the time on the display is different from what it was before you unplugged the AC power cord, replace the battery with a new one.
Concerning the battery life, see "Specifications".

Notes

- Be sure to install the battery before disconnecting the AC power cord.
- When the unit is unplugged from the wall outlet for a long time, be sure to remove the battery to avoid undue battery discharge and unit damage from battery leakage.

Radio Operation



See illustration E.

1 Set the function selector to RADIO ON.

2 Turn the VOLUME control a little to get sound.

3 Choose the desired band.

4 Tune in the desired station.

5 Adjust volume.

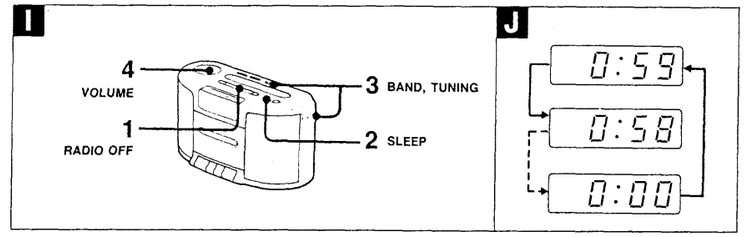
To turn off the radio, set the function selector to RADIO OFF.

For Improved Reception

See illustration F.

FM: Extend the FM wire antenna fully increase the FM sensitivity.
AM: Since the reception is affected by the direction of the radio, rotate the unit horizontally for optimum reception.

How to Use the Sleep Timer



See illustration I.

1 Set the function selector to position other than RADIO ON.

2 Press the SLEEP button to set the sleep timer operation time.
The radio will be turned on for 59 minutes.
Keep the SLEEP button depressed to reduce the time sequence by one minute. (See illustration J.)

3 Tune in a desired station.

4 Adjst the volume.

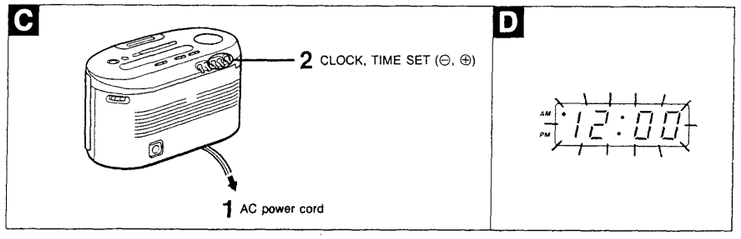
You can fall asleep to the radio sound knowing that the radio will turn itself off after the preset time period has elapsed.

To turn off the radio before the preset time elapses, press the ALARM RESET/SLEEP OFF button which cancels the SLEEP function.

Notes

- If you wish to fall asleep to the tape sound, set the function selector to RADIO OFF or SINGLE ALARM [B BUZZER] and play back a recorded tape. The position SINGLE ALARM [B BUZZER] is used when you wish to awake to the buzzer.
- The tape playback time depends on the length of the tape and when it reaches its end, the PLAY (STANDBY) (▶) button will release automatically.

How to Set the Clock



See illustration C.

Example: To set to 8:15 AM

1 Connect the AC power cord to a wall outlet.
Figures will appear on the time display and begin to flash. (See illustration D.)

2 Set the current time.
While keeping CLOCK pressed, press the TIME SET ⊕ buton (to go forward rapidly) and the TIME SET ⊖ button (to go backward slowly).
Release CLOCK at exactly 8:15 AM.
The clock will begin to operate when CLOCK is released.

To set the current time rapidly, press the ⊕ button and advance to a time that is a few minutes ahead of the current time. Then press the ⊖ button to set the time correctly.

Zero second adjustment

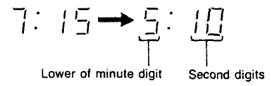
Example: To set to 7:15 AM

1 Adjust the time to 7:16 AM as previously described.

2 While keeping CLOCK pressed, press TIME SET ⊖ button simultaneously with the radio or telephone time announcement, and then release.

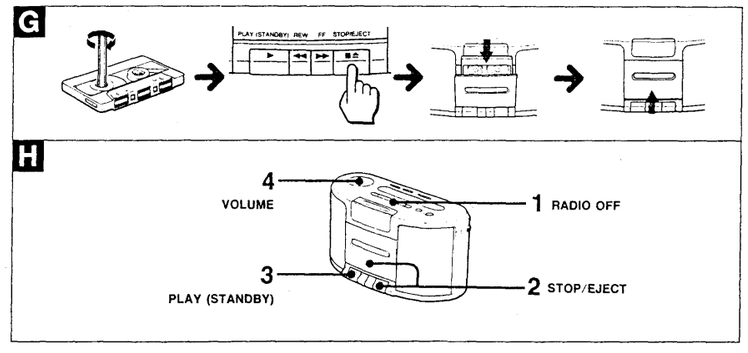
To display minute and second, press DREAM BAR SNOOZE.

Example: When the current time is 7:15:10, the display will become:



The display returns to the current hour and minute when it is released.

Tape Insertion & Playback



See illustration G.

Before inserting, take up any slack in the tape.

See illustration H.

1 Set the function selector to RADIO OFF.
The playback is also possible when you set the function selector to RADIO ON or SINGLE ALARM [B BUZZER].

2 Press the STOP/EJECT (■⏏) button to open the cassette holder and insert a cassette.
To rewind the tape, press REW (◀◀).
To advance the tape rapidly, press FF (▶▶).

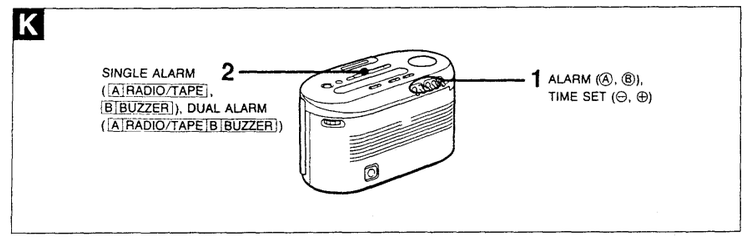
3 Depress the PLAY (STANDBY) (▶) button.

4 Adjust volume.

Notes

- In fast-forward or rewind mode, the motor stops at the tape end. The locked button will automatically release.
- While playing back, keep the function selector to RADIO OFF. If you set the selector to SINGLE ALARM [A RADIO/TAPE] or DUAL ALARM [A RADIO/TAPE B BUZZER], the tape being played back enters the pause mode. To resume tape playback, return the function selector to RADIO OFF.

How to Set the Alarm



See illustration K.

1 Set the alarm time for radio/tape or buzzer.
To set the radio/tape alarm: Keep the ALARM Ⓐ (radio/tape) button depressed, press the TIME SET ⊖ or ⊕ button.
To set the buzzer alarm: Keep the ALARM Ⓑ (buzzer) button depressed, press the TIME SET ⊖ or ⊕ button.

2 Set the function selector to the desired alarm position: SINGLE ALARM [A RADIO/TAPE], SINGLE ALARM [B BUZZER], or DUAL ALARM [A RADIO/TAPE B BUZZER].

For radio alarm

Tune in the desired station and adjust volume as described in "Radio Operation".

For tape alarm

Play back a recorded tape and adjust volume as described in "Tape Playback".
Leave the PLAY (STANDBY) (▶) button depressed.
At the preset time, playback will start automatically.
To stop the tape, press STOP/EJECT (■⏏).
When the tape reaches its end and if the alarm duration still remains, the alarm shifts from tape to radio.

For dual alarm

If you set the radio/tape and the buzzer to the same time, only the radio/tape sound will be heard.

Notes

- The buzzer sound level is fixed, and independent of the VOLUME control.
- You can set the buzzer alarm and listen to the radio or tape. At the preset time, the buzzer and the radio or tape will sound simultaneously.

The radio, tape or buzzer will automatically sound at the preset time, and automatically turn itself off after 59 minutes, unless it is turned off manually.

To turn off the alarm manually, press the ALARM RESET/SLEEP OFF button.
The alarm will sound at the regular preset time on the following day.

Snooze Alarm Function

If you awake to the radio/tape or buzzer but want to doze for a few more minutes, just lightly press the DREAM BAR SNOOZE bar. The radio/tape or buzzer will be silenced but will automatically come on again after about 7 minutes. If you want to doze more, press the bar again.
If the buzzer alarm is set to the time fewer minutes than 7 before radio/tape alarm preset time and you awake to the buzzer to doze, the alarm shifts from radio/tape to buzzer at the radio/tape alarm preset time.

Notes

- You can reset the alarm time while activation the snooze function.
- To cancel the alarm before the alarm time, set the function selector switch to RADIO OFF.
- To read out instantly the alarm preset time, press the ALARM button.

To Use Both Sleep Timer and Alarm Function

1 Set the alarm. (See "How to Set the Alarm")

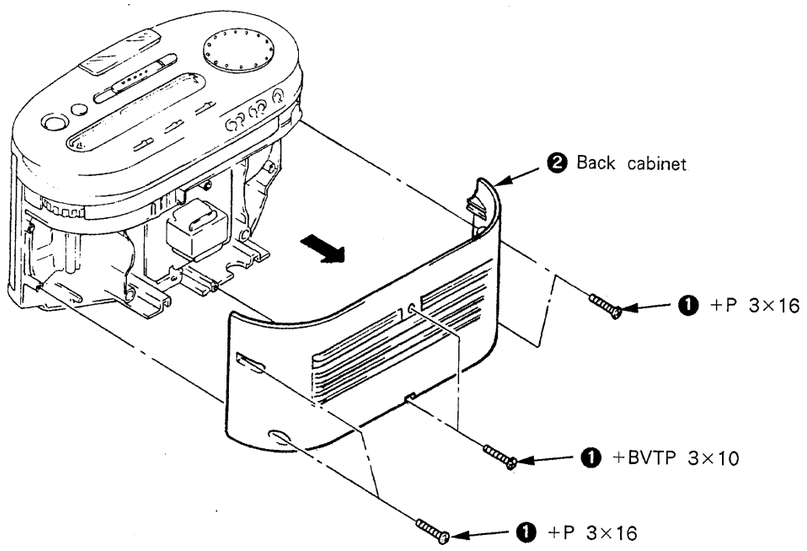
2 Set the sleep timer. (See "How to Use the Sleep Timer")

3 Set the function selector switch to SINGLE ALARM [A RADIO/TAPE], SINGLE ALARM [B BUZZER] or DUAL ALARM [A RADIO/TAPE B BUZZER].
You can fall asleep to the radio sound and you will be awakened by the radio/tape or buzzer alarm at the preset time.

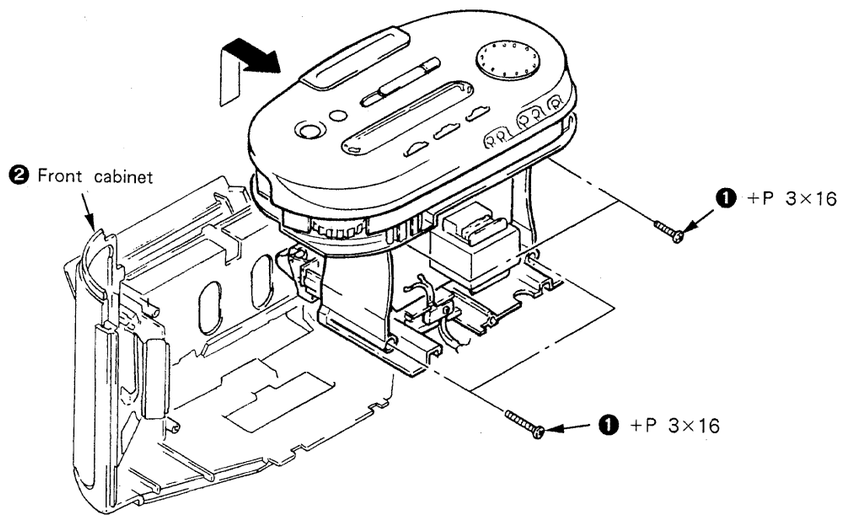
SECTION 2
DISASSEMBLY

Note : Follow the disassembly procedure in the mumerical order given.

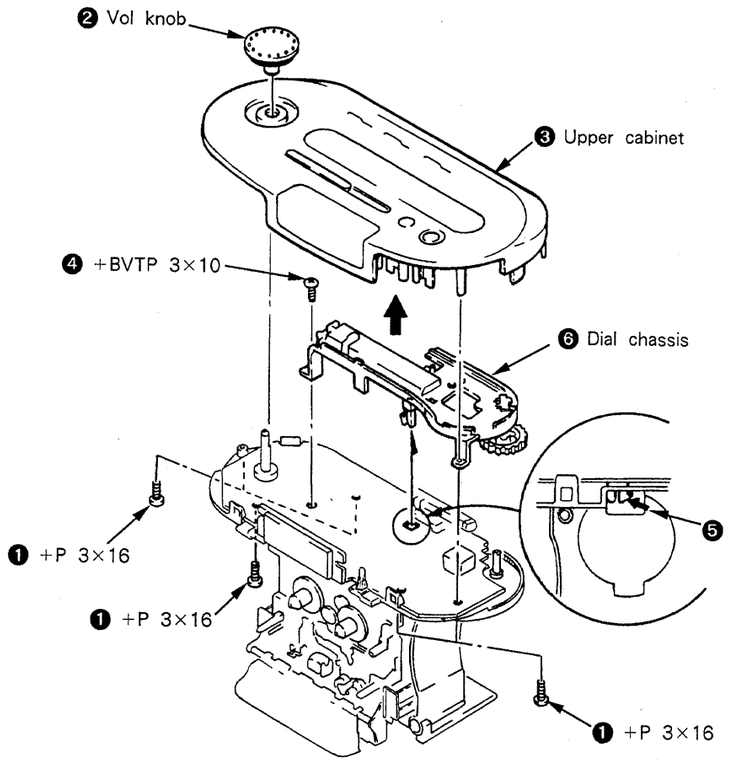
2-1. BACK CABINET



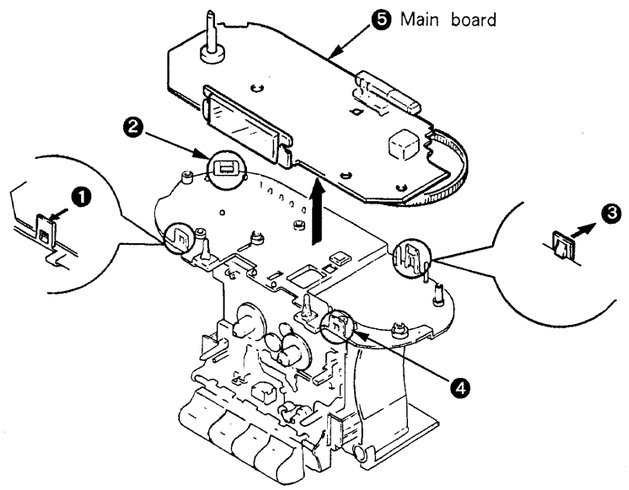
2-2. FRONT CABINET



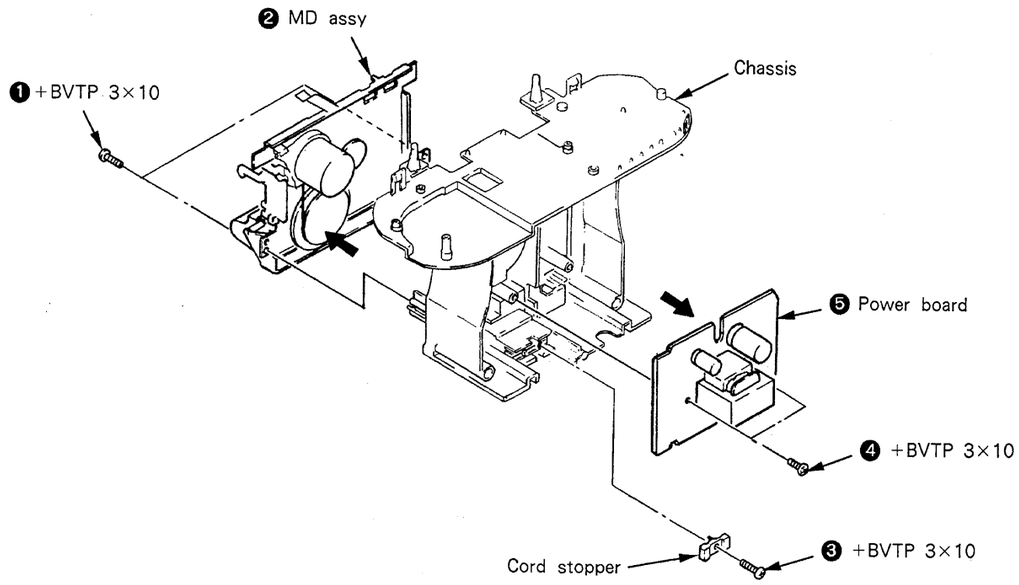
2-3. UPPER CABINET, DIAL CHASSIS



2-4. MAIN BOARD



2-5. MD ASSY, POWER BOARD, CHASSIS



SECTION 3
DIAL POINTER INSTLLATION

1. Insert the pointer end into to DIAL CHASSIS.

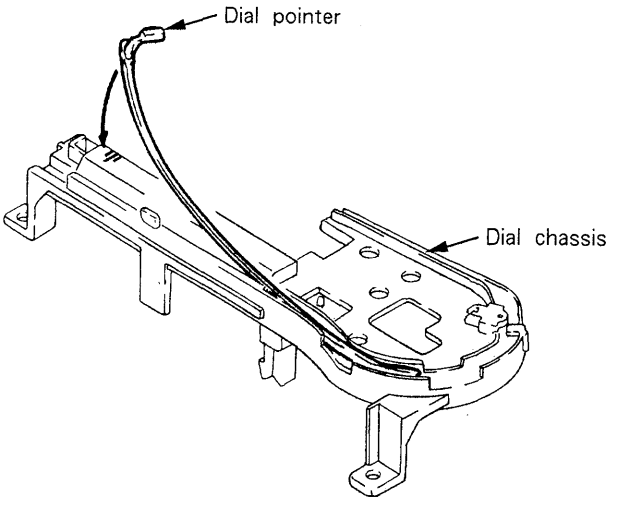


Fig. 1

2. POINTER (point mark side) comes to the pointer guide.

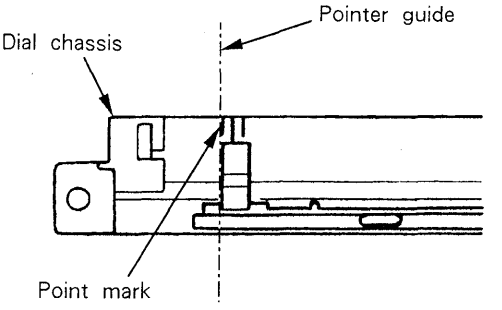


Fig. 2

3. Turn TUNING GEAR knob fully in the direction of arrow and DIAL CHASSIS to MAIN board as shown on Fig. 3.

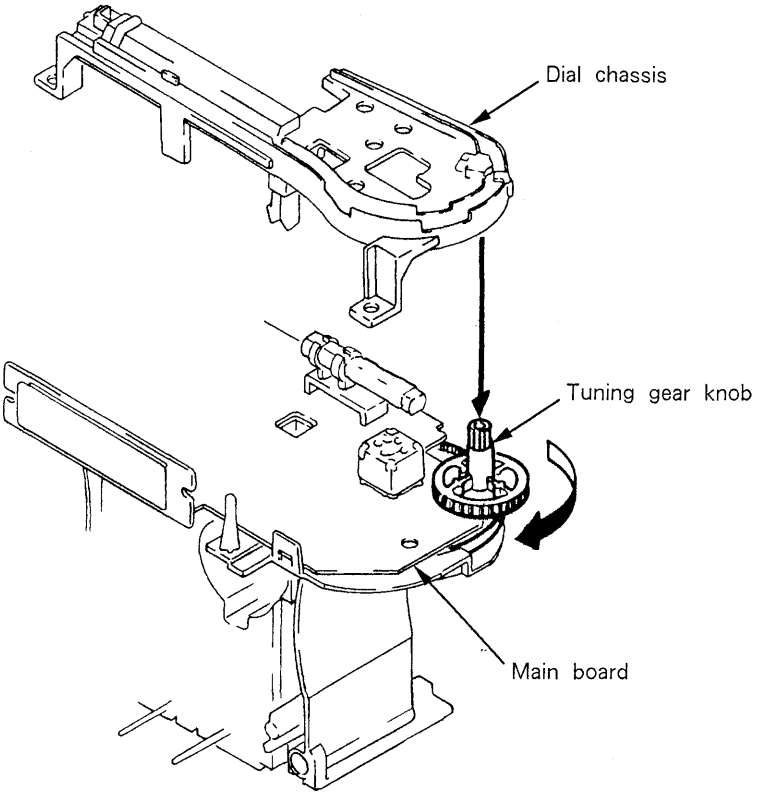


Fig. 3

SECTION 4
ADJUSTMENTS

TAPE SECTION

4-1. MECHANICAL ADJUSTMENTS

PRECAUTION

1. Clean the following parts with a denatured alcohol-moistened swab :
   playback head　　erase head
   capstan　　rubber belts
   pinch roller
   idlers
2. Demagnetize the head with a head demagnetizer.
3. Do not use a magnetized screwdriver for the adjustments.
4. After the adjustments, apply suitable locking compound to the parts adjusted.
5. The adjustments should be performed with the rated power supply voltage unless otherwise noted.

Torgue Measurement

Torque	Torque Meter	Meter Reading
Playback	CQ-102C	30−60g · cm (0.42−0.83 oz · inch)
Rewind / Fast Foward	CQ-201B	55−140g · cm (0.76−1.93 oz · inch)
Back Tension	CQ-102C	1−5g · cm (0.014−0.007 oz · inch)

4-2. ELECTRICAL ADJUSTMENTS

Note : The adjustment should be performed in the order given in this service manual.
The adjustments should be performed for both L-CH and R-CH.

- Switches and controls should be set as follows unless otherwise specified.
  FUNCTION : TAPE (RADIO OFF)
  VOLUME : standard output

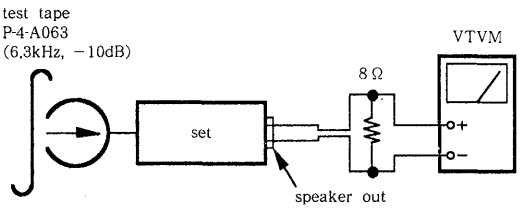
Test tape :

Type	Signal	Used for
WS-48B	3kHz, 0dB	Tape Speed Adjustment
P-4-A063	6.3kHz, −10dB	Azimuth Adjustment

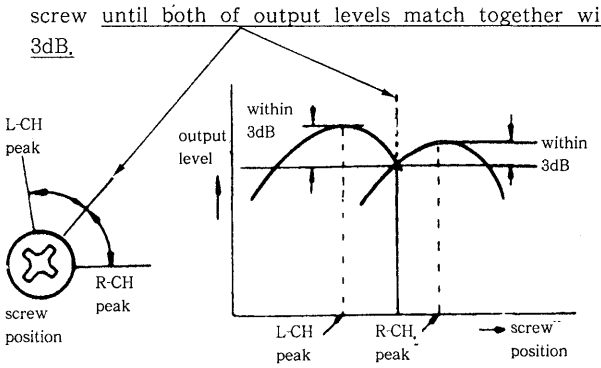
Record/playback Head Azimuth Adjustment

Procedure :

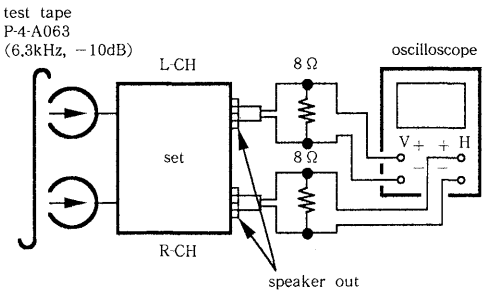
1. Mode : FWD playback

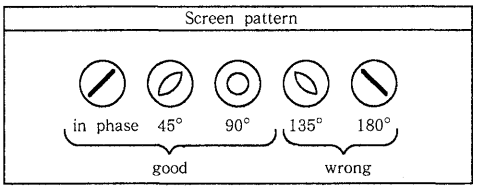


2. Turn the adjustment screw for the maximum output levels. If these levels do not match, turn the adjustment screw until both of output levels match together within 3dB.



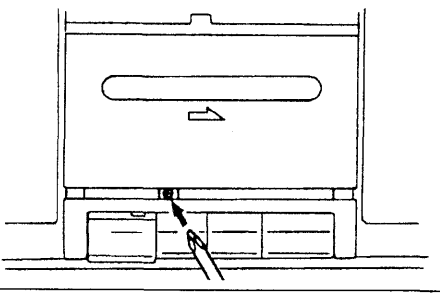
Phase Check
Mode : playback





3. Set in the reverse mode and repeat the steps 1-2.
4. After the adjustment, lock the screws with locking compound.

Adjustment Location :

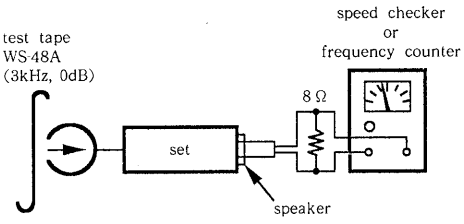


Tape Speed Adjustment

Procedure :

Mode : FWD playback

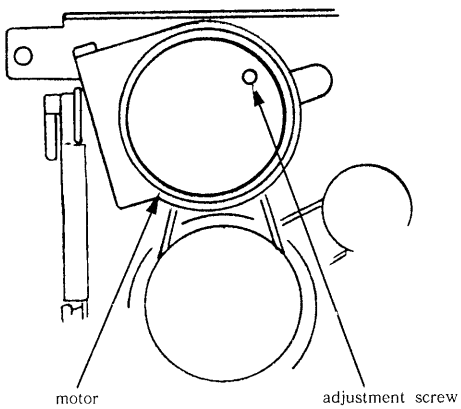
1. Put the set into the FWD PB mode.



Adjustment Value : Constant speed

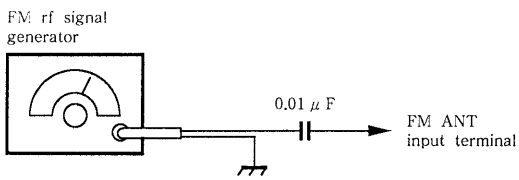
Speed check jig	Frequency counter
−2 to +3%	2,940 to 3,090Hz

Adjustment Location :



RADIO SECTION

FM Section



22.5kHz frequency deviation by 400Hz signal
Output level : as low as possible

FM SECTION

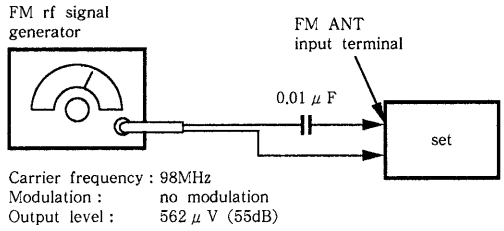
FM FREQUENCY COVERAGE ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
CT1	109.5MHz (108.25MHz)
L4	86.5MHz (87.35MHz)

FM TRACKING ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
CT2	109.5MHz
L1 L2	86.5MHz

no mark : US, Canadian
( ) : Italian

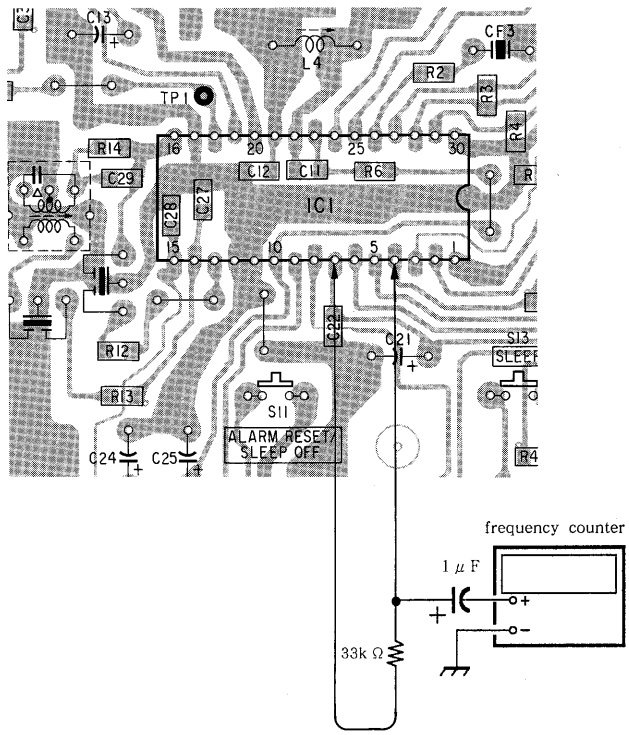
VCO Adjustment

Procedure :

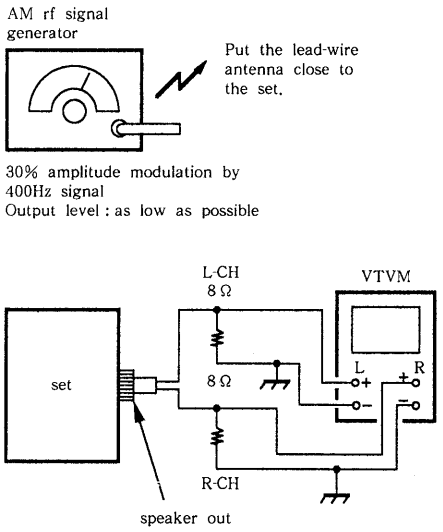


1. Connect frequency counter to it as shown below.
2. Tune the set to 98MHz.
3. BAND SWITCH (S1) should be set FM positions.
4. Adjust RV1 for 76kHz±0.15kHz reading on the frequency counter.

Adjustment Location : main board



AM Section



- Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by the trimmer capacitors.

AM SECTION

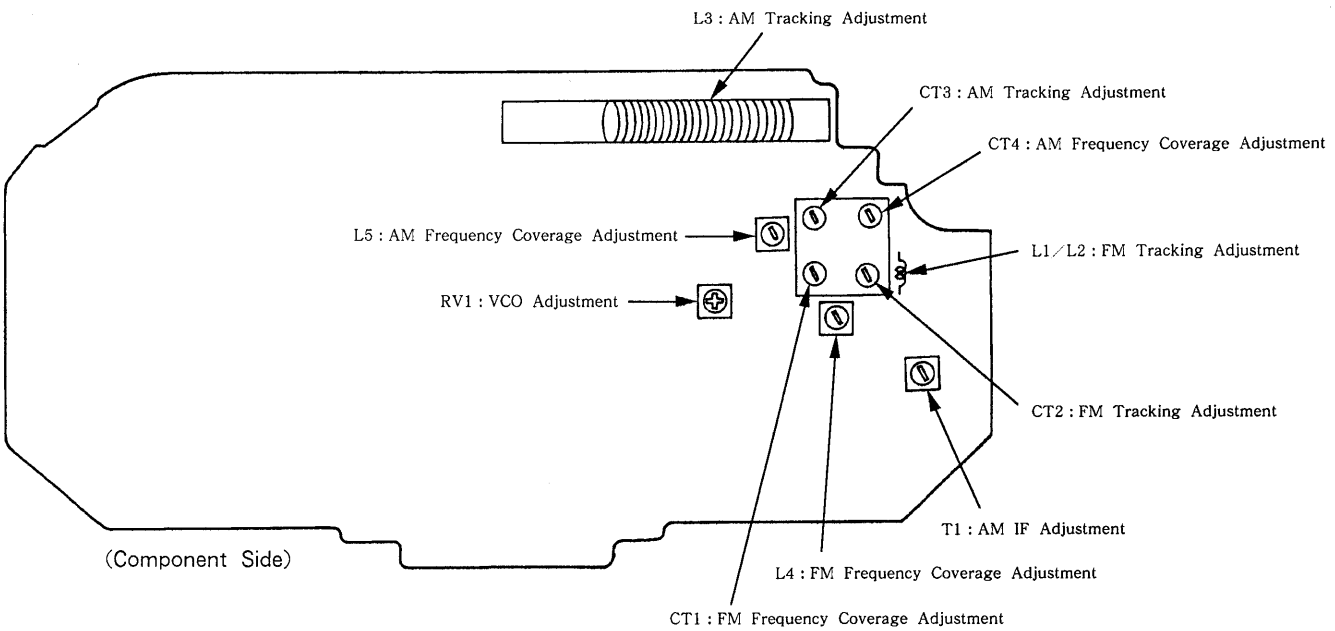
AM IF ALIGNMENT	
Adjust for a maximum reading on VTVM.	
T1	455kHz

AM FREQUENCY COVERAGE ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
CT4	1,750kHz (1,631kHz)
L5	520kHz (516kHz)

AM TRACKING ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
CT3	1,400kHz
L3	600kHz

no mark : US, Canadian
( ) : Italian

Adjustment Location : main board


L3 : AM Tracking Adjustment
CT3 : AM Tracking Adjustment
CT4 : AM Frequency Coverage Adjustment
L5 : AM Frequency Coverage Adjustment
L1/L2 : FM Tracking Adjustment
RV1 : VCO Adjustment
CT2 : FM Tracking Adjustment
T1 : AM IF Adjustment
(Component Side)
L4 : FM Frequency Coverage Adjustment
CT1 : FM Frequency Coverage Adjustment

SECTION 5
DIAGRAMS

• SEMICONDUCTOR LEAD LAYOUTS

DA106K

10E2

GL-3PR9

DTA114EK
DTC124EK
DTC124TK
DTC144EK
2SA1036K-Q
2SC1623-L5L6

MA152WK

2SD1664-QR
2SB1188-QR

MTZJ-T-77-13C
RD9.1ES-B2
1SS119

2SA952-K2

1S2836

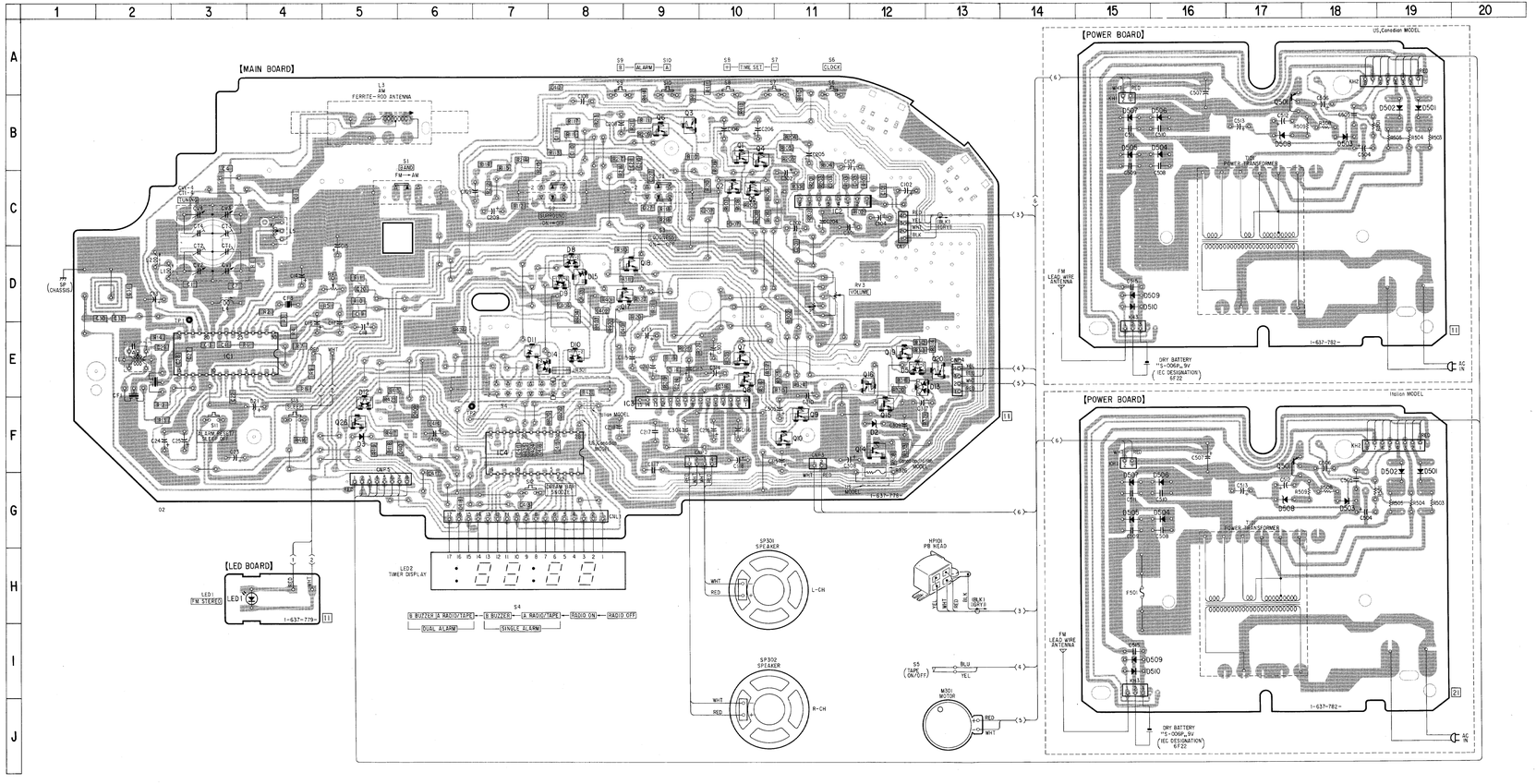
• SEMICONDUCTOR LOCATION

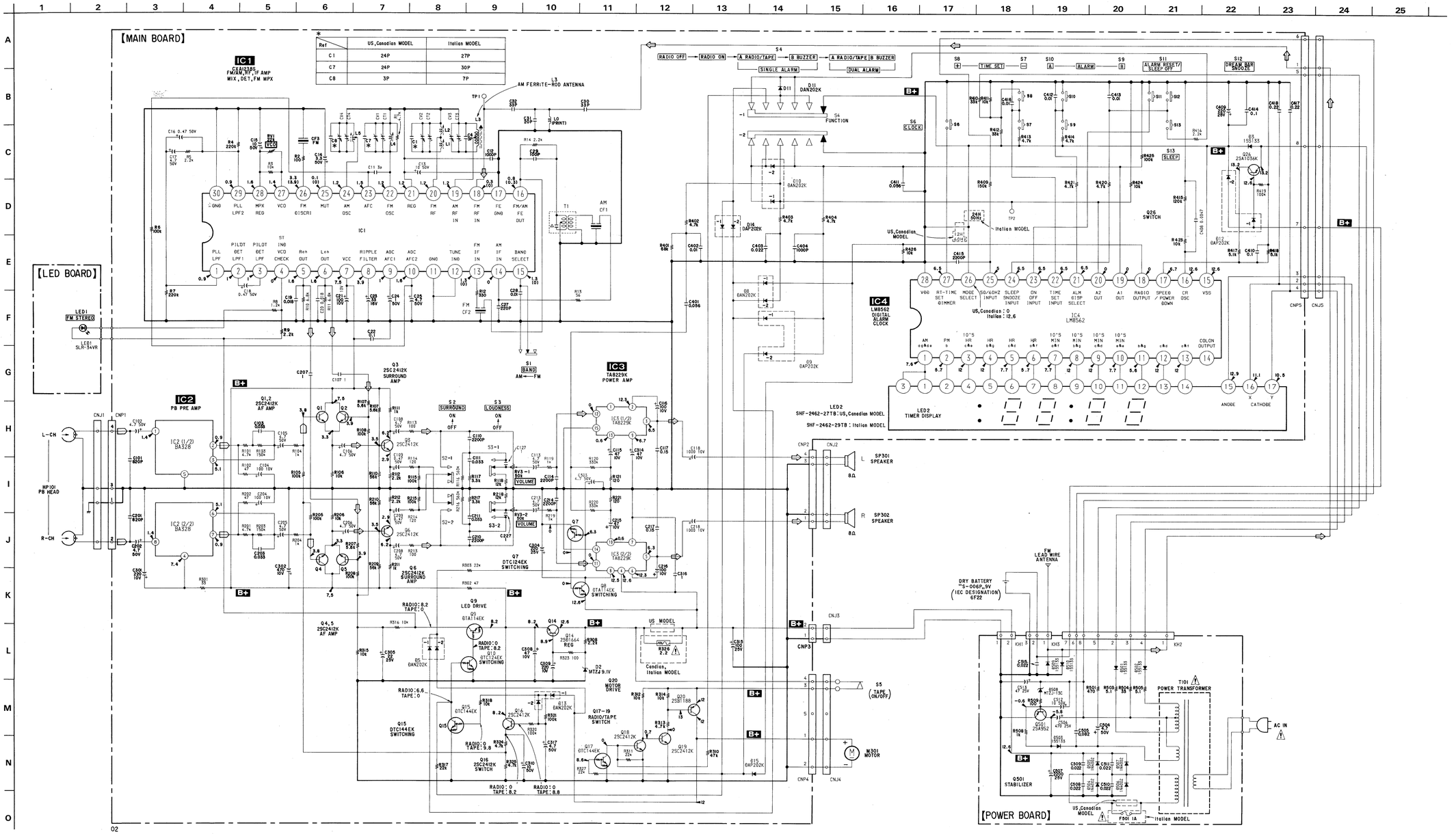
Ref. No.	Location	Ref. No.	Location
D2	F-12	US, Canadian Model	
D3	F-5		
D5	E-12	D501	B-19
D8	D-8	D502	B-19
D9	D-8	D503	B-18
		D504	B-16
D10	E-8	D505	B-15
D11	E-7		
D12	F-5	D506	B-16
D13	E-13	D507	B-15
D14	E-7	D508	B-17
D15	D-8	D509	D-15
		D510	D-15
IC1	E-3	Q501	B-17
IC2	C-11		
IC3	F-9		
IC4	F-7		
		Italian Model	
LED1	H-4	D501	G-19
LED2	H-7	D502	G-19
		D503	G-18
		D504	G-16
Q1	B-10	D505	G-15
Q2	C-10		
Q3	B-9	D506	G-16
Q4	B-10	D507	G-15
Q5	C-10	D508	G-17
		D509	I-15
Q6	B-9	D510	I-15
Q7	E-10		
Q8	E-10	Q501	F-17
Q9	F-11		
Q10	F-11		
Q14	F-12		
Q15	F-15		
Q16	E-12		
Q17	D-9		
Q18	D-9		
Q19	E-12		
Q20	E-13		
Q26	F-5		

Note :

- ○—— : parts extracted from the component side.
- ▨ : Pattern on the side which is seen.

5-1. PRINTED WIRING BOARDS





Note :

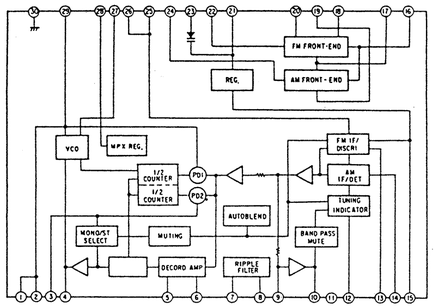
- All capacitors are in μF unless otherwise noted. pF : μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼W or less unless otherwise specified.
- △ : internal component.
- ⏦ : fusible resistor.

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	**Note:** Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

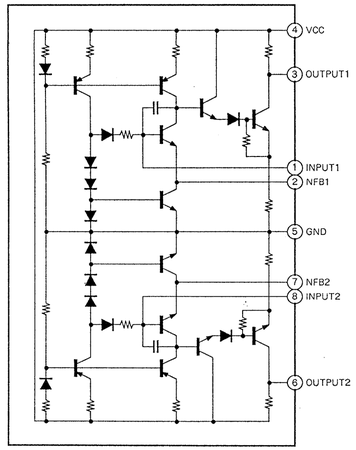
- B+ : B+ Line
- ▭ : adjustment for repair.
- Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM (RADIO SECTION)
  PLAYBACK (AUDIO SECTION)
  ( ) : AM
- Voltages are taken with a VOM (Input impedance 10M Ω). Voltage variations may be noted due to normal production tolerances.
- Signal path.
  ⇨ : FM
  ⇨ : PB

• IC BLOCK DIAGRAMS

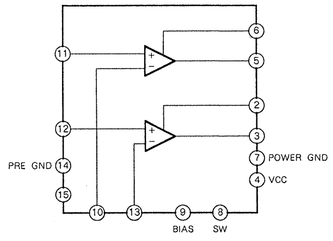
IC1 CXA1238S



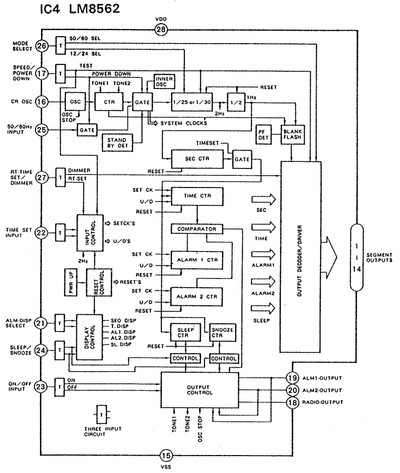
IC2 BA328



IC3 TA8229K



IC4 LM8562

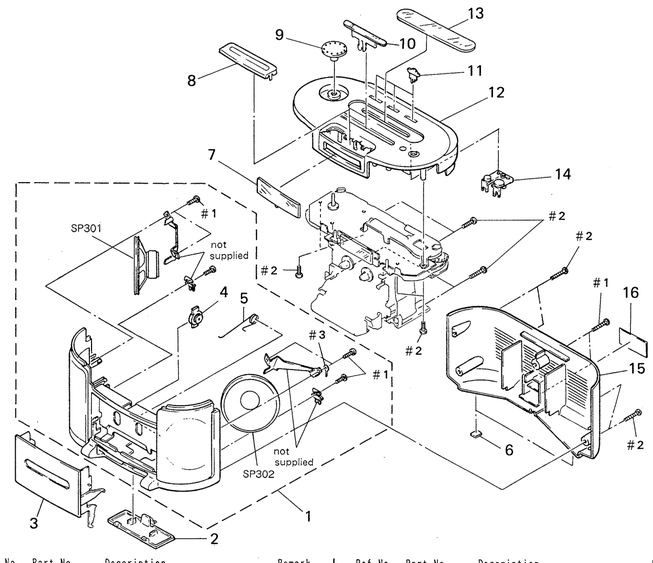


SECTION 6
EXPLODED VIEWS

NOTE:
- –XX, –X mean standardized parts, so they may have some differences from the original one.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Color indication of Appearance Parts Example:
  KNOB, BALANCE (WHITE)....(RED)
  ↑ ↑
  Parts color Cabinet's color
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list is given in the last of this parts list.

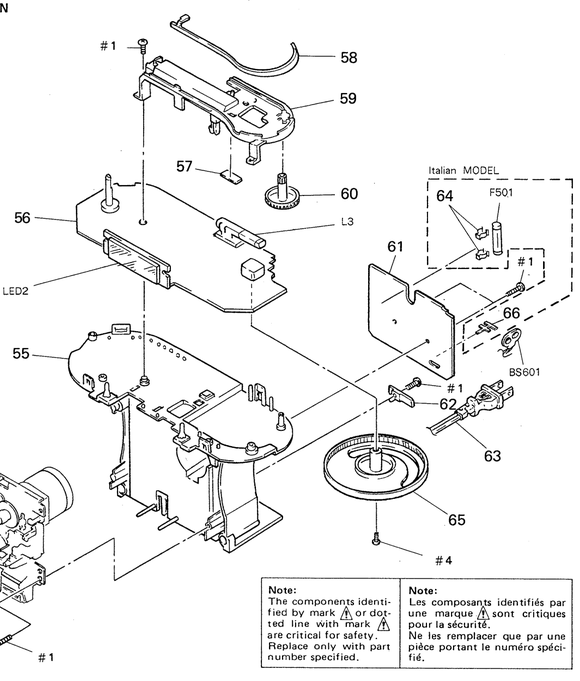
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

6-1. CABINET SECTION



Ref. No.	Part No.	Description	Remark
1	A-3635-571-A	CABINET (FRONT) ASSY	
2	3-367-107-01	LID, BATTERY CASE	
3	A-3635-573-A	HOLDER ASSY, CASSETTE	
4	3-343-248-01	DAMPER (P), SMALL	
5	3-366-336-01	SPRING, HOLDER UP	
6	* 3-367-840-01	FOOT, RUBBER	
7	3-366-319-01	PLATE (CLOCK), TRANSPARENT (US, Canadian)	
7	3-366-319-11	PLATE (CLOCK), TRANSPARENT (Italian)	
8	3-366-325-01	BUTTON (SNOOZE)	
9	3-366-323-01	KNOB (VOL)	
10	3-366-321-01	KNOB (FUNCTION)	
11	3-366-317-01	KNOB (BAND)	
12	3-366-311-01	CABINET (UPPER) (US, Canadian)	
12	3-366-311-11	CABINET (UPPER) (Italian)	
13	3-366-315-01	WINDOW, DIAL (US, Canadian)	
13	3-366-315-11	WINDOW, DIAL (Italian)	
14	3-366-318-01	BUTTON (SLEEP)	
15	3-366-313-01	CABINET (BACK) (US, Canadian)	
15	3-366-313-21	CABINET (BACK) (Italian)	
16	3-372-339-01	MODEL NUMBER LEBEL (Italian)	
SP301	1-544-407-11	SPEAKER	
SP302	1-544-407-11	SPEAKER	

6-2. CHASSIS SECTION

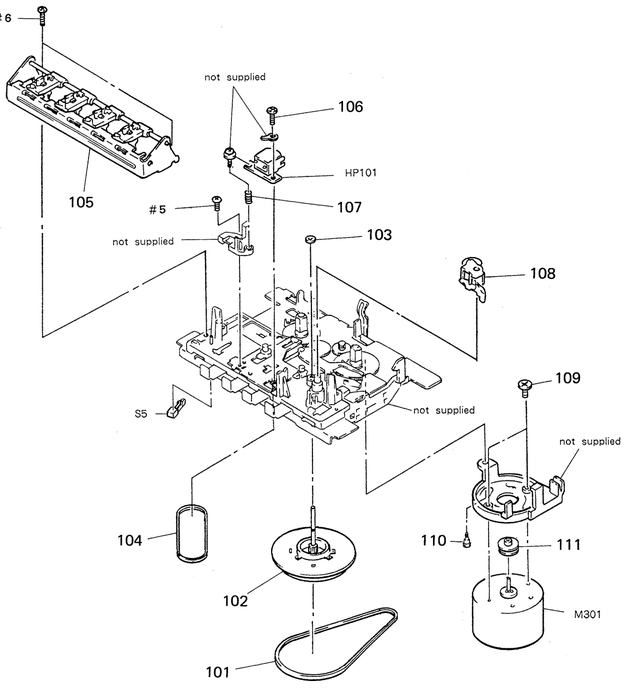


Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

Note: Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark
51	3-366-327-01	BUTTON (STOP)	
52	3-366-329-01	BUTTON (REW)	
53	3-366-328-01	BUTTON (FF)	
54	3-366-330-01	BUTTON (PLAY)	
55	* 3-366-320-01	CHASSIS	
56	* A-3661-311-A	MAIN BOARD, COMPLETE (US)	
56	* A-3661-322-A	MAIN BOARD, COMPLETE (Canadian)	
56	* A-3661-324-A	MAIN BOARD, COMPLETE (Italian)	
57	* 1-637-779-11	LED BOARD	
58	3-366-324-01	RACK, POINTER	
59	* 3-366-322-01	CHASSIS (DIAL)	
60	3-366-316-01	KNOB (TUNE GEAR)	
61	* 1-637-782-11	POWER BOARD (US, Canadian)	
61	* 1-637-782-21	POWER BOARD (Italian)	
62	3-884-408-00	STOPPER, CORD	
63	⚠ 1-558-566-21	CORD, POWER (US, Canadian)	
63	⚠ 1-574-158-11	CORD, POWER (Italian)	
64	1-533-233-11	HOLDER, FUSE (Italian)	
65	3-366-326-01	GEAR (TUNING CAPACITOR)	
66	* 3-893-625-01	TERMINAL (Italian)	
L3	1-402-464-11	ANTENNA, FERRITE-ROD (MW) (US, Canadian)	
L3	1-402-405-11	ANTENNA, FERRITE-ROD (MW) (Italian)	
F501	⚠ 1-532-078-00	FUSE, TIME-LAG (1A) (Italian)	
LED2	8-719-974-85	LED SHF-2462-27TB (TIMER DISPLAY) (US, Canadian)	
LED2	8-719-980-26	LED SHF-2462-29TB (TIMER DISPLAY) (Italian)	
BS601	1-535-253-00	SNAP, BATTERY	

6-3. MECHANISM SECTION (MF-CS650)



Ref. No.	Part No.	Description	Remark
101	3-986-414-01	BELT, MAIN	
102	3-348-356-01	FLYWHEEL ASSY	
103	3-986-416-01	WASHER, POLY-SLIDER	
104	3-596-931-01	BELT, RF	
105	* X-3363-640-1	FRAME ASSY, BUTTON	
106	3-986-415-01	SCREW (M2X3), + BIND	
107	3-598-845-01	SPRING	
108	3-986-417-01	ARM ASSY, PINCH ROLLER	
109	3-348-362-01	SCREW, M COLOR	
110	3-986-412-01	SCREW, MB COLOR	
111	3-986-413-01	PULLEY, MOTOR	
M301	1-541-625-11	MOTOR, DC	
HP101	1-543-832-11	HEAD, MAGNETIC (PB)	
S5	1-571-745-11	SWITCH, LEAF (TAPE ON/OFF)	

SECTION 7
ELECTRICAL PARTS LIST

LED **MAIN**

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- —XX, —X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms
  METAL : Metal-film resistor
  METAL OXIDE : Metal Oxide-film resistor
  F : nonflammable
- Items marked "＊" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u : μ, for example :
  uA.... : μA...., uPA.... : μPA....
  uPB.... : μPB...., uPC.... : μPC....
  uPD.... : μPD....
- CAPACITORS
  uF : μF
- COILS
  uH : μH

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

When indicating parts by reference number, please include the board name.

Ref. No.	Part No.	Description			Remark
	＊ 1-637-779-11	LED BOARD			
		*********			
		< LED >			
LED1	8-719-918-76	LED GL-3PR9 (FM STEREO)			
**********					
	＊ A-3661-311-A	MAIN BOARD, COMPLETE (US)			
		**********			
	＊ A-3661-322-A	MAIN BOARD, COMPLETE (Canadian)			
		**********			
	＊ A-3661-324-A	MAIN BOARD, COMPLETE (Italian)			
		**********			
	3-366-326-01	GEAR (TUNING CAPACITOR)			
		< CAPACITOR >			
C1	1-163-102-00	CERAMIC CHIP 24PF 5%		50V	(US, Canadian)
C1	1-163-103-00	CERAMIC CHIP 27PF 5%		50V	(Italian)
C4	1-163-086-00	CERAMIC CHIP 3PF		50V	US, Canadian)
C7	1-163-102-00	CERAMIC CHIP 24PF 5%		50V	(US, Canadian)
C7	1-163-104-00	CERAMIC CHIP 30PF 5%		50V	(Italian)
C8	1-163-086-00	CERAMIC CHIP 3PF		50V	(US, Canadian)
C8	1-163-090-00	CERAMIC CHIP 7PF		50V	(Italian)
C11	1-163-086-00	CERAMIC CHIP 3PF		50V	
C12	1-163-009-11	CERAMIC CHIP 0.001uF	10%	50V	
C13	1-124-907-11	ELECT 10uF	20%	50V	
C14	1-126-162-11	ELECT 3.3uF	20%	50V	
C15	1-124-907-11	ELECT 10uF	20%	50V	

Ref. No.	Part No.	Description			Remark
C16	1-124-902-00	ELECT 0.47uF	20%	50V	
C17	1-124-927-11	ELECT 4.7uF	20%	100V	
C18	1-124-465-00	ELECT 0.47uF	20%	50V	
C19	1-163-024-00	CERAMIC CHIP 0.018uF	10%	50V	
C20	1-163-024-00	CERAMIC CHIP 0.018uF	10%	50V	
C21	1-124-584-00	ELECT 100uF	20%	10V	
C22	1-163-038-00	CERAMIC CHIP 0.1uF		25V	
C23	1-124-242-00	ELECT 33uF	20%	25V	
C24	1-124-903-11	ELECT 1uF	20%	50V	
C25	1-124-927-11	ELECT 4.7uF	20%	100V	
C27	1-163-001-11	CERAMIC CHIP 220PF	10%	50V	
C28	1-164-232-11	CERAMIC CHIP 0.01uF		50V	
C29	1-163-117-00	CERAMIC CHIP 100PF	5%	50V	
C30	1-163-105-00	CERAMIC CHIP 33PF	5%	50V	
C31	1-163-100-00	CERAMIC CHIP 20PF	5%	50V	
C32	1-163-105-00	CERAMIC CHIP 33PF	5%	50V	
C101	1-163-139-00	CERAMIC CHIP 820PF	5%	50V	
C102	1-126-163-11	ELECT 4.7uF	20%	50V	
C103	1-163-989-11	CERAMIC CHIP 0.033uF	10%	25V	
C104	1-124-443-00	ELECT 100uF	20%	10V	
C105	1-124-927-11	ELECT 4.7uF	20%	100V	
C106	1-126-163-11	ELECT 4.7uF	20%	50V	
C107	1-164-346-11	CERAMIC CHIP 1uF		16V	
C108	1-124-927-11	ELECT 4.7uF	20%	100V	
C109	1-124-902-00	ELECT 0.47uF	20%	50V	
C110	1-164-161-11	CERAMIC CHIP 0.0022uF	10%	100V	
C111	1-163-989-11	CERAMIC CHIP 0.033uF	10%	25V	
C113	1-124-927-11	ELECT 4.7uF	20%	100V	
C114	1-164-161-11	CERAMIC CHIP 0.0022uF	10%	100V	
C115	1-124-126-00	ELECT 47uF	20%	10V	
C116	1-124-443-00	ELECT 100uF	20%	10V	
C117	1-130-497-00	MYLAR 0.15uF	5%	50V	
C118	1-124-473-11	ELECT 1000uF	20%	10V	
C127	1-164-346-11	CERAMIC CHIP 1uF		16V	
C201	1-163-139-00	CERAMIC CHIP 820PF	5%	50V	

Ref. No.	Part No.	Description			Remark
C202	1-124-927-11	ELECT	4.7uF	20%	100V
C203	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V
C204	1-124-443-00	ELECT	100uF	20%	10V
C205	1-124-927-11	ELECT	4.7uF	20%	100V
C206	1-126-163-11	ELECT	4.7uF	20%	50V
C207	1-164-346-11	CERAMIC CHIP	1uF		16V
C208	1-126-163-11	ELECT	4.7uF	20%	50V
C209	1-124-902-00	ELECT	0.47uF	20%	50V
C210	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C211	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V
C213	1-124-927-11	ELECT	4.7uF	20%	100V
C214	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C215	1-124-126-00	ELECT	47uF	20%	10V
C216	1-124-443-00	ELECT	100uF	20%	10V
C217	1-130-497-00	MYLAR	0.15uF	5%	50V
C218	1-124-473-11	ELECT	1000uF	20%	10V
C227	1-164-346-11	CERAMIC CHIP	1uF		16V
C301	1-126-176-11	ELECT	220uF	20%	10V
C302	1-124-472-11	ELECT	470uF	20%	10V
C303	1-124-927-11	ELECT	4.7uF	20%	100V
C304	1-124-120-11	ELECT	220uF	20%	25V
C305	1-126-233-11	ELECT	22uF	20%	50V
C308	1-124-126-00	ELECT	47uF	20%	10V
C309	1-126-176-11	ELECT	220uF	20%	10V
C310	1-124-261-00	ELECT	10uF	20%	50V
C314	1-124-126-00	ELECT	47uF	20%	10V
C315	1-124-478-11	ELECT	100uF	20%	25V
C316	1-164-346-11	CERAMIC CHIP	1uF		16V
C317	1-124-927-11	ELECT	4.7uF	20%	100V
C401	1-164-343-11	CERAMIC CHIP	0.056uF	10%	25V
C402	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C403	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C404	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C408	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C409	1-124-120-11	ELECT	220uF	20%	25V
C410	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C411	1-164-343-11	CERAMIC CHIP	0.056uF	10%	25V
C412	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C413	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C414	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C415	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C416	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C417	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C418	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
		< FILTER >			
CF1	1-577-072-11	FILTER, CERAMIC			
CF2	1-567-198-71	FILTER, CERAMIC			
CF3	1-567-198-71	FILTER, CERAMIC			

Ref. No.	Part No.	Description	Remark
		< CONNECTOR >	
CNL1	* 1-580-715-11	PIN, CONNECTOR	
CNP1	* 1-506-986-11	PIN, CONNECTOR (PC BOARD) 4P	
CNP2	* 1-506-986-11	PIN, CONNECTOR (PC BOARD) 4P	
CNP3	* 1-506-984-11	PIN, CONNECTOR (PC BOARD) 2P	
CNP4	* 1-506-987-11	PIN, CONNECTOR (PC BOARD) 5P	
CNP5	* 1-506-990-11	PIN, CONNECTOR (PC BOARD) 8P	
		< VARIABLE >	
CV1	1-151-615-11	CAP, VARIABLE (CV1-4, CT1-4) (Italian)	
CV1	1-151-624-11	CAP, VARIABLE (CV1-4, CT1-4) (US, Canadian)	
		< DIODE >	
D2	8-719-110-13	DIODE RD9.1ES-B2	
D3	8-719-911-19	DIODE 1SS119	
D5	8-719-400-18	DIODE MA152WK	
D8	8-719-400-18	DIODE MA152WK	
D9	8-719-104-34	DIODE 1S2836	
D10	8-719-400-18	DIODE MA152WK	
D11	8-719-400-18	DIODE MA152WK	
D12	8-719-104-34	DIODE 1S2836	
D14	8-719-104-34	DIODE 1S2836	
D15	8-719-104-34	DIODE 1S2836	
		< IC >	
IC1	8-752-050-20	IC CXA1238S	
IC2	8-759-932-80	IC BA328	
IC3	8-759-246-03	IC TA8229K	
IC4	8-759-823-50	IC LM8562	
		< JUMPER >	
JR301	1-216-296-00	METAL CHIP 0 5% 1/8W	
		< COIL >	
L1	* 1-422-291-11	COIL, AIR-CORE	
L2	* 1-422-291-11	COIL, AIR-CORE	
L3	1-402-405-11	ANTENNA, FERRITE-ROD (MW) (Italian)	
L3	1-402-464-11	ANTENNA, FERRITE-ROD (MW) (US, Canadian)	
L4	1-406-214-11	COIL, FM OSCILLATION	
L5	1-406-150-11	COIL, MW OSC	
		< LED >	
LED2	8-719-974-85	LED SHF-2462-27TB (TIMER DISPLAY) (US, Canadian)	
LED2	8-719-980-26	LED SHF-2462-29TB (TIMER DISPLAY) (Italian)	

MAIN

Ref. No.	Part No.	Description			Remark
		< TRANSISTOR >			
Q1	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q2	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q3	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q4	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q5	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q6	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q7	8-729-901-00	TRANSISTOR DTC124EK			
Q8	8-729-901-04	TRANSISTOR DTA114EK			
Q9	8-729-901-04	TRANSISTOR DTA114EK			
Q10	8-729-901-00	TRANSISTOR DTC124EK			
Q14	8-729-920-85	TRANSISTOR 2SD1664-QR			
Q15	8-729-901-01	TRANSISTOR DTC144EK			
Q16	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q17	8-729-901-01	TRANSISTOR DTC144EK			
Q18	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q19	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q20	8-729-920-82	TRANSISTOR 2SB1188-QR			
Q26	8-729-901-97	TRANSISTOR 2SA1036K-Q			
		< RESISTOR >			
R1	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R2	1-216-025-00	METAL CHIP	100	5%	1/10W
R3	1-216-073-00	METAL CHIP	10K	5%	1/10W
R4	1-216-105-00	METAL CHIP	220K	5%	1/10W
R5	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R6	1-216-097-00	METAL CHIP	100K	5%	1/10W
R7	1-216-105-00	METAL CHIP	220K	5%	1/10W
R8	1-216-051-00	METAL CHIP	1.2K	5%	1/10W
R9	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R10	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R11	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R12	1-216-037-00	METAL CHIP	330	5%	1/10W
R13	1-216-019-00	METAL CHIP	56	5%	1/10W
R14	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R101	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R102	1-216-017-00	METAL CHIP	47	5%	1/10W
R103	1-216-101-00	METAL CHIP	150K	5%	1/10W
R104	1-216-049-00	METAL CHIP	1K	5%	1/10W
R105	1-216-097-00	METAL CHIP	100K	5%	1/10W
R106	1-216-073-00	METAL CHIP	10K	5%	1/10W
R107	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R108	1-216-097-00	METAL CHIP	100K	5%	1/10W
R109	1-216-091-00	METAL CHIP	56K	5%	1/10W
R110	1-216-091-00	METAL CHIP	56K	5%	1/10W
R111	1-216-049-00	METAL CHIP	1K	5%	1/10W
R112	1-216-057-00	METAL CHIP	2.2K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R113	1-216-025-00	METAL CHIP	100	5%	1/10W
R114	1-216-027-00	METAL CHIP	120	5%	1/10W
R115	1-216-097-00	METAL CHIP	100K	5%	1/10W
R116	1-216-115-00	METAL CHIP	560K	5%	1/10W
R117	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R118	1-216-075-00	METAL CHIP	12K	5%	1/10W
R119	1-216-049-00	METAL CHIP	1K	5%	1/10W
R120	1-216-109-00	METAL CHIP	330K	5%	1/10W
R121	1-216-027-00	METAL CHIP	120	5%	1/10W
R201	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R202	1-216-017-00	METAL CHIP	47	5%	1/10W
R203	1-216-101-00	METAL CHIP	150K	5%	1/10W
R204	1-216-049-00	METAL CHIP	1K	5%	1/10W
R205	1-216-097-00	METAL CHIP	100K	5%	1/10W
R206	1-216-073-00	METAL CHIP	10K	5%	1/10W
R207	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R208	1-216-097-00	METAL CHIP	100K	5%	1/10W
R209	1-216-091-00	METAL CHIP	56K	5%	1/10W
R210	1-216-091-00	METAL CHIP	56K	5%	1/10W
R211	1-216-049-00	METAL CHIP	1K	5%	1/10W
R212	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R213	1-216-025-00	METAL CHIP	100	5%	1/10W
R214	1-216-027-00	METAL CHIP	120	5%	1/10W
R215	1-216-097-00	METAL CHIP	100K	5%	1/10W
R216	1-216-115-00	METAL CHIP	560K	5%	1/10W
R217	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R218	1-216-075-00	METAL CHIP	12K	5%	1/10W
R219	1-216-049-00	METAL CHIP	1K	5%	1/10W
R220	1-216-109-00	METAL CHIP	330K	5%	1/10W
R221	1-216-027-00	METAL CHIP	120	5%	1/10W
R301	1-216-013-00	METAL CHIP	33	5%	1/10W
R302	1-216-017-00	METAL CHIP	47	5%	1/10W
R303	1-216-081-00	METAL CHIP	22K	5%	1/10W
R308	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R310	1-216-089-00	METAL CHIP	47K	5%	1/10W
R311	1-216-081-00	METAL CHIP	22K	5%	1/10W
R312	1-216-073-00	METAL CHIP	10K	5%	1/10W
R313	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R314	1-216-073-00	METAL CHIP	10K	5%	1/10W
R315	1-216-073-00	METAL CHIP	10K	5%	1/10W
R316	1-216-073-00	METAL CHIP	10K	5%	1/10W
R317	1-216-081-00	METAL CHIP	22K	5%	1/10W
R318	1-216-073-00	METAL CHIP	10K	5%	1/10W
R320	1-216-097-00	METAL CHIP	100K	5%	1/10W
R321	1-216-097-00	METAL CHIP	100K	5%	1/10W
R323	1-216-025-00	METAL CHIP	100	5%	1/10W

MAIN POWER

Ref. No.	Part No.	Description			Remark
R324	1-216-065-00	METAL CHIP	4.7K	5% 1/10W	
R325	1-216-065-00	METAL CHIP	4.7K	5% 1/10W	
R326 ⚠	1-217-639-00	FUSIBLE	2.2	5% 1/4W F	(Canadian, Italian)
R327	1-216-081-00	METAL CHIP	22K	5% 1/10W	
R401	1-216-093-00	METAL CHIP	68K	5% 1/10W	
R402	1-216-065-00	METAL CHIP	4.7K	5% 1/10W	
R403	1-216-065-00	METAL CHIP	4.7K	5% 1/10W	
R404	1-216-065-00	METAL CHIP	4.7K	5% 1/10W	
R409	1-216-101-00	METAL CHIP	150K	5% 1/10W	
R410	1-216-085-00	METAL CHIP	33K	5% 1/10W	
R411	1-216-073-00	METAL CHIP	10K	5% 1/10W	
R412	1-216-085-00	METAL CHIP	33K	5% 1/10W	
R413	1-216-065-00	METAL CHIP	4.7K	5% 1/10W	
R414	1-216-065-00	METAL CHIP	4.7K	5% 1/10W	
R415	1-216-099-00	METAL CHIP	120K	5% 1/10W	
R416	1-216-057-00	METAL CHIP	2.2K	5% 1/10W	
R417	1-216-066-00	METAL CHIP	5.1K	5% 1/10W	
R418	1-216-066-00	METAL CHIP	5.1K	5% 1/10W	
R419	1-216-097-00	METAL CHIP	100K	5% 1/10W	
R420	1-216-065-00	METAL CHIP	4.7K	5% 1/10W	
R421	1-216-065-00	METAL CHIP	4.7K	5% 1/10W	
R423	1-216-073-00	METAL CHIP	10K	5% 1/10W	
R424	1-216-073-00	METAL CHIP	10K	5% 1/10W	
R425	1-216-097-00	METAL CHIP	100K	5% 1/10W	
R426	1-216-073-00	METAL CHIP	10K	5% 1/10W	
		< VARIABLE RESISTOR >			
RV1	1-238-601-11	RES, ADJ, CARBON 22K (VCO)			
RV3	1-241-421-11	RES, VAR, CARBON (VOLUME)			
		< SWITCH >			
S1	1-572-624-11	SWITCH, SLIDE (BAND FM/AM)			
S2	1-572-624-11	SWITCH, SLIDE (SURROUND)			
S3	1-572-624-11	SWITCH, SLIDE (LOUDNESS)			
S4	1-572-626-11	SWITCH, SLIDE (FUNCTION)			
S6	1-571-760-11	SWITCH, KEY BOARD (CLOCK)			
S7	1-571-760-11	SWITCH, KEY BOARD (TIME SET -)			
S8	1-571-760-11	SWITCH, KEY BOARD (TIME SET +)			
S9	1-571-760-11	SWITCH, KEY BOARD (ALARM B)			
S10	1-571-760-11	SWITCH, KEY BOARD (ALARM A)			
S11	1-571-760-11	SWITCH, KEY BOARD (ALARM RESET/SLEEP OFF)			
S12	1-571-760-11	SWITCH, KEY BOARD (DREAM BAR SNOOZE)			
S13	1-571-760-11	SWITCH, KEY BOARD (SLEEP)			
		< TRANSFORMER >			
T1	1-404-790-11	TRANSFORMER, IF			

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Ref. No.	Part No.	Description			Remark
*	1-637-782-11	POWER BOARD (US, Canadian)			
		**********			
*	1-637-782-21	POWER BOARD (Italian)			
		**********			
⚠	1-558-566-21	CORD, POWER (US, Canadian)			
⚠	1-574-158-11	CORD, POWER (Italian)			
	1-533-233-11	HOLDER, FUSE (Italian)			
*	3-893-625-01	TERMINAL (Italian)			
		< BATTERY >			
BS601	1-535-253-00	SNAP, BATTERY			
		< CAPACITOR >			
C504	1-126-163-11	ELECT	4.7uF	20% 50V	
C505	1-162-850-11	CERAMIC	0.082uF	10% 16V	
C506	1-124-480-11	ELECT	470uF	20% 25V	
C507	1-124-563-11	ELECT	2200uF	20% 25V	
C508	1-164-097-11	CERAMIC	0.022uF	50V	
C509	1-164-097-11	CERAMIC	0.022uF	50V	
C510	1-164-097-11	CERAMIC	0.022uF	50V	
C511	1-164-097-11	CERAMIC	0.022uF	50V	
C512	1-124-261-00	ELECT	10uF	20% 50V	
C513	1-124-477-11	ELECT	47uF	20% 25V	
C515	1-164-097-11	CERAMIC	0.022uF	50V	
		< CONNECTOR >			
CNJ3	* 1-563-470-11	HOUSING, CONNECTOR 2P			
		< DIODE >			
D501	8-719-911-19	DIODE	1SS119		
D502	8-719-911-19	DIODE	1SS119		
D503	8-719-911-19	DIODE	1SS119		
D504	8-719-200-02	DIODE	10E2		
D505	8-719-200-02	DIODE	10E2		
D506	8-719-200-02	DIODE	10E2		
D507	8-719-200-02	DIODE	10E2		
D508	8-719-923-85	DIODE	MTZJ-T-77-13C		
D509	8-719-911-19	DIODE	1SS119		
D510	8-719-911-19	DIODE	1SS119		
		< FUSE >			
F501 ⚠	1-532-078-00	FUSE, TIME-LAG (1A) (Italian)			
		< CONNECTOR >			
KH1	* 1-568-268-11	SOCKET, CONNECTOR 2P			
KH2	* 1-568-274-11	SOCKET, CONNECTOR 8P			
KH3	1-568-269-11	SOCKET, CONNECTOR 3P			

Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Note:
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

POWER

Ref. No.	Part No.	Description			Remark
		< TRANSISTOR >			
Q501	8-729-195-23	TRANSISTOR 2SA952-K2			
		< RESISTOR >			
R501	1-249-413-11	CARBON	470	5%	1/4W
R503	1-247-776-00	CARBON	5.1	5%	1/4W
R504	1-249-399-11	CARBON	33	5%	1/4W
R505	1-247-776-00	CARBON	5.1	5%	1/4W
R508	1-249-417-11	CARBON	1K	5%	1/4W
R509	1-249-405-11	CARBON	100	5%	1/4W
		< TRANSFORMER >			
T101 ⚠	1-450-330-21	TRANSFORMER, POWER (US)			
T101 ⚠	1-450-330-31	TRANSFORMER, POWER (Canadian)			
T101 ⚠	1-450-331-21	TRANSFORMER, POWER (Italian)			

****

MISCELLANEOUS
****

HP101	1-543-832-11	HEAD, MAGNETIC (PB)			
LED2	8-719-974-85	LED SHF-2462-27TB (US, Canadian)			
LED2	8-719-980-26	LED SHF-2462-29TB (Italian)			
M301	1-541-625-11	MOTOR, DC			
S5	1-571-745-11	SWITCH, LEAF (TAPE ON/OFF)			
SP301	1-544-407-11	SPEAKER			
SP302	1-544-407-11	SPEAKER			

****

ACCESSORIES & PACKING MATERIALS
****

*	3-369-802-11	INDIVIDUAL CARTON (Canadian, Italian)
*	3-372-339-01	MODEL NUMBER LABEL (Italian)
*	3-369-802-01	INDIVIDUAL CARTON (US)
	3-753-078-21	MANUAL, INSTRUCTION (ENGLISH) (US)
	3-753-078-31	MANUAL, INSTRUCTION (ENGLISH, FRENCH) (Canadian)
	3-753-078-51	MANUAL, INSTRUCTION (ITALIAN) (Italian)

****

HARDWARE LIST

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#1	7-685-647-79	SCREW +BVTP 3X10 TYPE2 IT-3
#2	7-685-650-79	SCREW +P 3X16 TYPE2 NON-SLIT
#3	7-623-508-01	LUG, 3
#4	7-621-770-67	SCREW +P 2.6X6
#5	7-621-255-45	SCREW, TOTSU PWH 2X6
#6	7-621-255-55	SCREW +PTT 2X8 (S)

Note:	Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

9-956-644-11

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ICF-CS650

SONY

SERVICE MANUAL

REVISED

US Model
Canadian Model
Italian Model

CORRECTION-1R

File this Correction with the Service Manual.

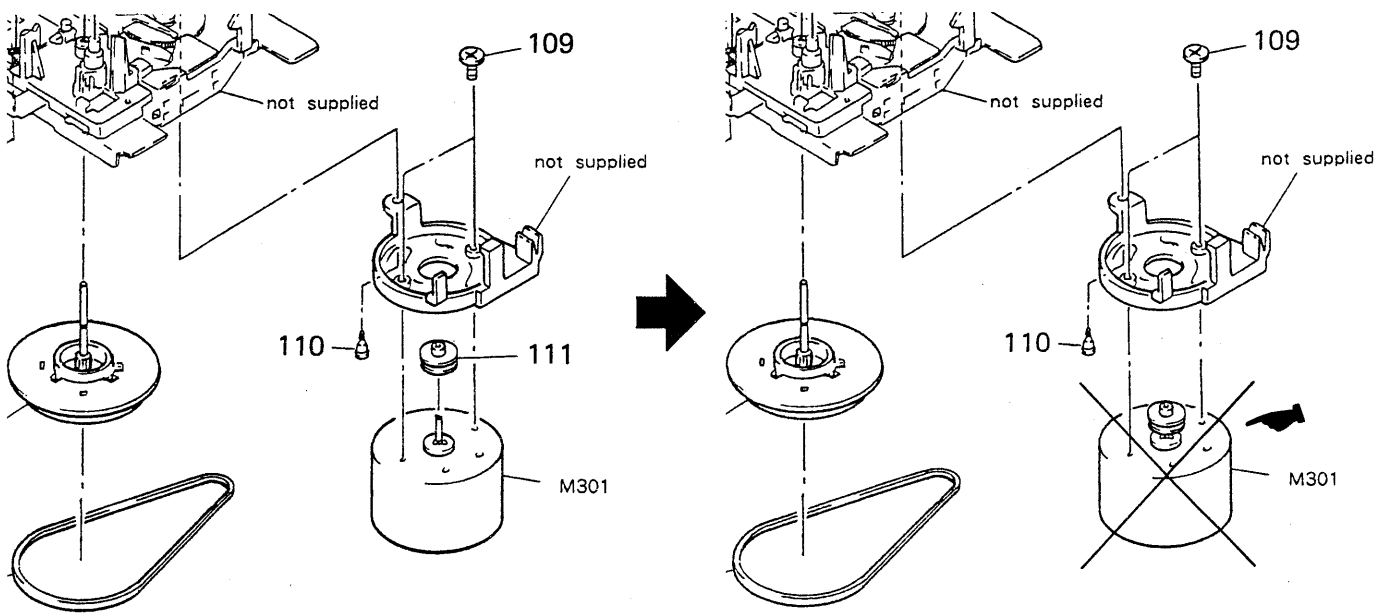
In CORRECTION-1 (9-956-644-91) we announced that the motor assembly (X-3364-551-1) should be supplied as a unit, however, the DC motor (1-541-625-11) and the motor pulley (3-986-413-01) will be supplied separately.

Ref. No.	Part No.	Description	Remark
111	3-986-413-01	PULLEY, MOTOR	
M301	1-541-625-11	MOTOR, DC	

➡

Ref. No.	Part No.	Description	Remark
delete			
~~M301~~	~~X-3364-551-1~~	~~PULLEY ASSY, MOTOR~~	~~(correct)~~

☛ : correct



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